REMARKS

Claims 32 and 34-69 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

SPECIFICATION

The Examiner has objected to the specification based on certain informalities which do not effect the patentability of the present application. Applicant has amended the specification to correct the informalities in the specification. Therefore, Applicant respectfully traverses this rejection.

CLAIM OBJECTIONS

The Examiner has objected to the claims based on certain informalities which do not effect the patentability of the present application. Applicant has cancelled the claims and/or amended the claims to correct the informalities in the claims. Therefore, Applicant respectfully traverses this rejection.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior at in view of EP 0 820 004 A1 (Suzuki). This rejection is respectfully traversed.

coders in dependence of the capability of individual coders to perform a specific function. Thus, when a coder is capable of performing the function the processing system instructs said coder such that it performs the function, otherwise the processing system performs the function on behalf of the coder. These claims also make clear that the processing system instructs a plurality of coders and not just one.

Thus the processing system supplies the coders with instructions that are sufficient to allow the coders to operate, but at the same time delegates the performance of the specific function to a coder when possible. There are at least four identifiable advantages of this.

Firstly, the processing system reduces the processing it is required to do. It should be appreciated that the invention relates to apparatus for applying codes to packaging of consumer products. This typically takes place on packaging lines, and it is the packaging lines which dictate the rate at which the coders must code the packaging and hence the rate at which the processing system must instruct the coders. It is therefore essential that the processing system is not overburdened, such that it cannot service all of the coders at the required times, since this could cause production delays or stoppages. By being aware of capabilities of coders, the processing system makes use of their ability where possible and reduces the burden upon itself.

Secondly, because it is able to supply higher level instructions to at least one of the coders, the processing system may also reduce the time required to communicate the instructions.

data. By making use of the functionality of a coder, the frequency of communication to the coder may be reduced and it is thus allowed to operate efficiently.

An example of a function which may most usefully be performed by a coder is described on page 12 of the specification. If a coder has a real-time clock and is capable of producing a date by adding an increment to its real-time clock value, then this function is preferably performed by the coder. Thus both processing time of the processing system, and communication time between the processing system and coder is saved. Furthermore, if the coder has the ability to keep-time and update its printed image accordingly, on occasions when the date changes during a production run, there is no need for the processing system to communicate with the coder.

Fourthly, where specialized functions provided by the coders are used, the resulting printed code may be of a higher quality than if the function is not used. For example, a coder may produce a better quality barcode when supplied with a character string than when a bitmap is supplied because of aliasing produced when printing from a supplied bitmap.

Therefore, in summary, the present invention advantageously makes use of coder capabilities where possible.

EP 0 820 004 A1 (Suzuki) is concerned with print speedup technology for a print system comprising a computer and printer. (C1 lines 7-11.) The object of the invention of Suzuki is to increase the throughput of the system without enhancing the throughput of the printer itself. (C2 lines 3-7.)

or all of these commands are converted to an intermediate code format (DIM code) by the computer before being transmitted to the printer. (See C2 lines 28-40.) (The details of generating the DIM code, and outputting to the spooler, before transmittance to the printer are shown Figure 9.) The intermediate code (DIM code) received form the computer is converted, by the controller of the printer, to an intermediate code (PIM code) used internally by the printer. This conversion is very simple. (See C5 lines 29-33.) Consequently, the printer is saved from having to convert the PDL to the PIM code, and instead has the simpler task of converting the DIM code to the PIM code. Thus, by utilizing the processing and memory resources of the computer the printing speed of the system as a whole is increased.

Suzuki therefore teaches that a printer system, in which a computer normally instructs a printer to print in a high level language, may be speeded up by making the computer assist the printer to process the high level language. Thus, Suzuki suggests that extra burden may be placed upon the processing powers of the computer to negate the slow processing speed of the printer's controller.

This is in contrast to the present invention, in which the processing system (or computer) refers to the capabilities of coders to perform required functions and in cases where a coder can perform a required function, the function is performed by the coder and, in cases where a coder cannot perform a required function, the function is performed by the processing system (or computer); i.e., in the present invention, where possible, processing burden is placed upon the coder's processing capabilities and not on those of

Claim 68 replaces claim 33. Claim 68 makes clear that a first processing device sends a generic image data file (which defines requirements for an image) to a second processing device. Examples of such data files are shown in Figures 17, 18 and 19 of the application. The second processing device receives the generic image data file and then sends instructions to a coder such that the instructions depend upon the data file as well as the processing capabilities of the coder. (An overview of this process is described with a reference to Figure 4 of the specification. Generic graphical image files 403 are generated at a first processing device at a bureau 106 and sent to a second processing device (delivery processing system 406). The second processing system is aware of processing capabilities of a coder (i.e., the capabilities of coder processing sub-system 411) and generates instructions for the coder with reference to these capabilities.)

Claim 68 therefore requires the communication of generic information from one processing device to a second processing device. It is the second processing device which is then aware of the processing capabilities of the coder, and instructs the coder accordingly. There is no suggestion in Suzuki of the computer receiving generic definitions of images to be applied to packaging and then instructing the printer to print in dependence upon the generic definitions and the printers processing capabilities. Consequently, claim 68 is considered to be inventive.

Claim 39 has been similarly amended to refer to the concept of producing coder specific instructions to be sent to a coder with reference to the processing capabilities of the coder. The claim has also been clarified in that the original claim 39 apparently used the word "code" in more than one sense. The [illegible]

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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